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ABSTRACT

As learning technologies increasingly facilitate the internationalization of subject offerings, it becomes correspondingly important to try and ensure that the needs of diverse student groups are met and to provide for ongoing improvement of their learning experiences. A variety of evaluation procedures are valuable in this respect, particularly those that illuminate these experiences. This kind of information provides a rich source of data for teachers to use as a basis for reflective practice to inform the continuing refinement of teaching and learning approaches, and curriculum development. The nature of reflective practice also allows for its inclusion in the students' learning processes, thus simultaneously providing a means for improving the quality of their learning and contributing to their future professional lives, while offering a further set of perspectives to inform subject development. This paper describes the use of reflective practice as a practical means of converging a range of non-positivist approaches to inform the teaching of a core undergraduate accounting subject at Monash University (Australia) offered to on-campus students, distance education students, and Year 13 school students, as well as to overseas students in Singapore, Malaysia, and Hong Kong. It also shows that demands by the accounting profession for universities to improve learning to cope with the ambiguity and uncertainty inherent within professional life can be met, in part, by reflective practice. (Contains 23 references.) (Author/MES)

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THE INTERNATIONAL CLASSROOM: USING REFLECTIVE PRACTICE TO IMPROVE TEACHING AND LEARNING

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Abstract

As learning technologies increasingly facilitate the internationalisation of subject offerings, it becomes correspondingly important to try and ensure that the needs of diverse student groups are met, and to provide for ongoing improvement of their learning experiences. A variety of evaluation procedures is valuable in this respect, but particularly those that illuminate these experiences. This kind of information provides a rich source of data for teachers to use as a basis for reflective practice to inform the continuing refinement of teaching and learning approaches, and curriculum development. The nature of reflective practice also allows for its inclusion in the students' learning processes, thus simultaneously providing a means for improving the quality of their learning and contributing to their future professional lives, whilst offering a further set of perspectives to inform subject development.

This paper describes the use of reflective practice as a practical means of converging a range of non-positivist approaches to inform the teaching of a core undergraduate accounting subject; offered in Australia to on-campus students, distance education students and Victorian Year 13 school students, as well as to overseas students in Singapore, Malaysia and Hong Kong. It also shows that demands by the accounting profession for universities to improve learning to cope with the ambiguity and uncertainty inherent within professional life can be met, in part, by reflective practice.

Keywords

accounting profession, collaboration, computer-mediated communication, convergence, dialogue, evaluation, interactivity, international, multiple narratives, reflective practice

Introduction

The University's overall goal is to develop and maintain a flexible and student-centred learning and teaching environment which embodies the three key terms – innovation, engagement and internationalisation – and which provides undergraduate and postgraduate education of the highest quality (Monash University, 1999, p.12).

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This paper describes how innovation, engagement and internationalisation are being implemented in a core undergraduate accounting subject via an iterative process of evaluation and reflective practice directed at the ongoing improvement of student learning experiences. The students include Australian on-campus (internal) students, distance education students and Victorian Year 13 (enhancement) school students, as well as overseas students in Singapore, Malaysia and Hong Kong. They are enrolled in Monash University's Faculty of Business & Economics which has 10,000 students across eight campuses in Australia, Malaysia and South Africa, and strategic alliances for program delivery in Singapore, Hong Kong and Indonesia. WebCT has been adopted to facilitate the Faculty's learning programs but there is currently wide variation in staff experience and use of the medium, and in the effectiveness of that use.

Computer-mediated communication (CMC) was introduced to the introductory accounting subject in 1998, primarily to reduce the isolation of distance education students (increasingly overseas students, especially from Singapore and Hong Kong). These students were enrolled in a subject area where the higher order learning goals relating to self-reflection on open-ended issues would appear to be best achieved and enhanced by dialogue. The use of CMC occurred in the context of a curriculum process that resulted in an issues-based subject supported by case studies and linked to the profession's own conceptual framework. An important factor which informed the decision to trial this approach was the perceived need by the accounting profession for graduates to be more broadly educated and to develop skills in exercising judgement based on the analysis of conceptual issues (CPA & CA, 1999). The profession continues to develop such a framework as a means of providing a unified theoretical base for the accounting discipline. Focusing the subject on issues thus supports the profession and plays an important role in meeting the professional bodies' accreditation criteria for university courses (CPA & CA, 1999). These criteria involve five cognitive and behavioural skill areas that are valued by the profession and which the accounting bodies expect to see developed in accounting graduates. While all skill areas are enhanced by an issues-based approach, it can also be argued that this approach is essential for some of the skills required, in particular behavioural skills which are defined to include personal and interpersonal skills. In addition, an issues-based subject requires an ability to cope with ambiguity, uncertainty, uniqueness and value conflict, all of which are central to professional practice, as well as to improving the quality of student learning (Ramsden, 1992).

The teaching and learning material for the subject prior to the use of CMC was print based. The subject was designed to encourage students to reflect critically but constructively on accounting principles, pronouncements and practices with a view to developing reflective judgement within a discipline that superficially may be considered prescriptive. An educational designer was consulted to ensure that the design of the print material reflected best practice for distance education students. Instructional material, activities and key issues were examined and adjusted to focus on the conceptual basis of the subject. The inclusion of CMC to achieve the higher order learning goals was a consequence of dialogue and reflection between the educational designer and the teacher of the subject. The initial use of CMC involved the provision of model answers to tutorial activities in the print materials and encouragement to discuss issues which arose from these and from open-ended questions interspersed throughout the material. Its introduction was also based upon the principles of enrichment and enhancement, given that online access was not a prerequisite for undertaking the subject. By 1999 it was clear that CMC needed to be better integrated into the teaching of the subject and that feedback was required about its use by students, which appeared to focus primarily on obtaining information rather than engaging in the interactive opportunities provided. A pilot evaluation was then undertaken to gain (mainly qualitative) feedback from Australian distance education students to explore their level of use and their perceptions of this component, and to provide a resource for reflection and decision-making by staff involved in teaching the subject.

The results of the 1999 pilot evaluation demonstrated a high degree of enthusiasm for CMC but also showed that access to the platform then used was a major issue. This was a primary reason for introducing WebCT into the subject in Semester 1 2000, although it also offered the advantage of allowing provision of online subject resources to complement those in the print materials. While WebCT solved many of the difficulties highlighted by the pilot evaluation it brought with it other challenges for both teacher and students, related to how students could be more involved in the

learning process and in the ongoing development of the subject, its content and assessment methods. This indicated the need for a continuing and more extensive evaluation process.

At the heart of the introduction of learning technologies into this subject is an ongoing cycle of curriculum development and a desire to incorporate sound learning processes. Collaborative learning via CMC offered the potential to develop both the analytical and behavioural skills required, as well as providing a loop for incorporating students' ideas back into the iterative development of the subject. Despite the strong support for such an approach within the profession, its practical implementation within a discipline area that is highly didactic was more problematic, while the diversity of the student group across numerous geographic locations added to the challenge.

The use of CMC, and then the wider range of resources offered by WebCT, thus began from an educational rather than a technological perspective, and was always considered primarily as a means of achieving specified learning goals. Although there has been some success with WebCT, currently its main use can be seen as reflecting a surface learning approach (Marton & Säljö, 1976) rather than the level of conceptual and behavioural learning that it is hoped can be achieved. The process so far, supported by the evaluation data, would suggest that incremental and reflective steps, based on evaluation, are the most appropriate way to work towards achieving higher level learning outcomes.

Theoretical Background

The views of teaching and learning which are informing the iterative development of this subject represent the convergence of a number of theoretical perspectives, all of which are consistent with the intellectual heritage of Dewey:

> It requires candor and sincerity to keep track of failures as well as successes and to estimate the relative degree of success obtained. It requires trained and acute observation to note the indications of progress in learning, and even more to detect their causes – a much more highly skilled kind of observation than is needed to note the results of mechanically applied tests. Yet the progress of a science of education depends upon the systematic accumulation of just this sort of material (Dewey, 1974, cited by Schön, 1987, p. 312).

The intellectual processes of reflection, analysis and interpretation undertaken by teachers to improve their teaching, in many ways reflect the learning processes expected of students, when these are seen as involving construction of meaning (Jonassen, 1999), influenced by factors such as experience, cognition and context (Grabinger, 1996). To understand the world of the learner, concepts from phenomenography (Entwistle, 1997) are also useful as a means of drawing on students' experiences, ideas and perceptions 'from the inside', while to parallel this, the process of critical reflection by the teacher is a means of interpreting and using this information for the ongoing improvement of student learning. Although perspectives from critical theory (Mezirow, 1981) and action research (Carr & Kemmis, 1986) provide useful insights into this reflective activity, the development of this subject has drawn particularly on the concept of reflective practice (Schön, 1987) because of the links that it makes between reflection and professions that require a high degree of formal rationality, and the suggestion that reflection is both required by such professionals and those engaged in educating these professionals.

Reflective practice involves seeing learning as an iterative process. The importance of reflecting on that process has been termed 'action science'. The process of learning is seen as a complex social activity that cannot be reduced to simplistic thinking. Reflection plays an integral role both in the action and learning from the action. The reflection proposed here involves an openness that requires teachers to challenge their own assumptions and continue to develop their skills. It involves articulating what is normally unsaid and facing up to the distinction that exists between espoused theories and theories in use. It is a reflection that requires the explicit documenting of the shifting understanding of the learning experience, not just as an individual experience but also as dialogue (Schön, 1987).

While the use of Schön's term 'reflection in action' has specific reference in this paper to the professional educator, these ideas were developed in the interest of professions such as engineering and medicine where a high level of formal rationality that eventually results in instrumental practice shapes technical expertise. Schön argues that the most important areas of professional practice lie beyond the instrumental boundaries based on technical expertise and go into the more indeterminate areas of practice that deal with uncertainty, uniqueness and value conflict. The outstanding professionals in all areas, including those with high levels of formal rationality, reflect wisdom, intuition and artistry beyond the instrumental. Schön argues that this is not a gift but involves a process that he terms 'knowing in action' which is often combined with 'reflection in action'. Although there is a tension between the two forms of action, it is the combined iterative process that enables professions to achieve the outcomes that the practice of their art demands (Schön, 1987).

While 'reflection in action' has recently been used in the educational literature dealing with engineers (Osborn, 2001), it is not a term that has been taken up in the accounting literature. This is surprising, as the accounting literature has drawn on the links between the formal rationality and instrumental practice of engineers and accountants in terms of their management functions and consequences (Armstrong, 1985, 1987; Hardy, 1998). It is suggested here that 'reflection in action' is relevant to academics involved in the education of professional accountants, both in terms of their role as professional educators and also in the links that must be established between the theoretical discipline orientation of the university sector and the practice orientation of the accounting profession.

This paper therefore provides an example of 'knowing in action' and 'reflection in action' relating both to the professional development of the educators of professional accountants and the ongoing need for reflection within the professional careers of accountants. As in the tradition of 'action science', the process does not refer to a completed project and is not isolated to one individual. Rather it is a part of the ongoing albeit unrecorded need to extend the phenomenological tradition to the education of professional accountants and to the use of learning technologies in this context. It is also an overt rejection of technical domination of the iterative process and a response to the ongoing need to 'stop and think' as the uncertainty of the human condition demands (Schön, 1987), particularly in the current rapidly changing educational environment. Schön's 'reflection in action' requires a duality at this level between the professional educator and the professional accountant. It is argued that a curriculum design based upon this duality must involve interactivity between the teacher and learner in an ongoing narrative that, although initially promoted by the teacher, has within its structure the possibility of collaboratively engaging students in higher order thinking. This is being achieved by challenging the assumptions of traditional accounting pedagogy with its focus on a single narrative of instrumental and technical skills to suggest that there are numerous narratives that can be explored. It provides the basis for the level of interactivity that is being sought in this subject, founded on the need for ongoing 'reflection in action' both within the provision of education for professional accountants and in the practice of professional accountants.

The notion of multiple narratives provides a means of conceptualising the need for professionals to cope with ambiguity, uncertainty and value conflict, something that cannot be achieved by a curriculum that only offers one narrative and does not encourage multiple stories. This challenges the assumptions of traditional accounting theory and practice, providing students with a set of critical tools to take into their professional careers, one such tool being 'reflection in action' which requires that the tension between multiple theories and practices be part of the ongoing life of the professional accountant. This subject achieves this by asking students to consider how the standards as developed by the profession can be challenged, given the conservative assumptions that have been built into accounting practice. It also has the potential to feed back into the normative aspects of the existing conceptual framework in the context of its practical usefulness. For example, this approach is highlighted within the introductory accounting subject when it is suggested that a multi-dimensional view and critique of the historical cost approach to the measurement of profit can provide a range of narratives on the concept of profit.

The current curriculum thus provides an opportunity for students to move away from the content and linear based curricula of traditional accounting subjects, where a single response is both

anticipated and expected. Interactivity, as suggested by Sims (1999a), is more readily achieved by a curriculum design which allows divergent but cogently supported views to be examined side by side. Such an approach if successfully implemented demands the development of higher order thinking, engagement and reflection with both the issues, fellow students and the developer of the curriculum. As such it is expected that the learner will 'become an integral part of the narrative or story being promoted by the developer' (Sims, 1999a, p. 312). Such a curriculum design within accounting requires the developer/teacher and the student to engage with each other outside of the instrumental norm, reflecting both on the educational experience and also its contribution to the professional life of the accountant, a double but seamless loop between educational and professional life.

The use of computer mediated communication provides a means of converging the benefits of both interactivity and reflective practice for supporting learning and improving teaching. Recognition of the importance of the social component in knowledge construction (Vgotsky, 1978) laid the groundwork for recognising the value of computer mediated group interaction, informing the range of theoretical and practical guidelines which have followed (for example, Mason & Kaye, 1989; Berge & Collins, 1995; Salmon, 2000). In its capacity to facilitate multiple narratives it works against the possibility of narratives interfering with interactivity as a means of engagement (Sims, 1999b) since it is the interactivity involved in exploring the narratives through dialogue which creates the engagement. What CMC has been able to begin to achieve in introductory accounting is to commence a dialogue between many of the stakeholders in this subject that was traditionally only available to internal students. In that sense the development of the subject is showing evidence of a collective narrative between teacher and learners. This is evident in a range of incremental but diverse ways, such as contributions to improvements in subject design (including refinement of issues and subject content), the CMC interface, and the ongoing development of the WebCT bulletin board as a means of enhancing dialogue between the geographically and culturally diverse students that make up the learners within the subject.

To evaluate the experiences of those engaged in reflective practice in this context requires methods that will bring teachers closer to the student viewpoint, while also recognising that all viewpoints are mediated by individual experience. Although teachers may recognise the need for learning which demonstrates the qualities discussed earlier, it is important as they reflect on evidence of student learning, and on students' perceptions about it, to recognise that there is likely to be a wide range in students' learning orientations (Beaty, Gibbs, & Morgan, 1997), and that measures to enhance learning will need to assist students across this range. This becomes of crucial importance when the classroom extends across campus and national boundaries.

Any attempt to explore student perceptions in detail requires data that is primarily qualitative: the mass of rich and unstructured information generated by such a process needs to be categorised for analysis, interpretation and reflection to improve future practice. Pre-coded instruments are likely to be teacher-centred (unless they are derived from previous student-centred studies) but when student responses drive the categorisation of the data, this provides a structure both drawn from, and with the potential of adding to understanding about, student learning experiences.

Morgan (1990) refers to the hegemony of survey research, which acts against the use of qualitative attitudinal data to inform the improvement of learning. However, the ease of administration and analysis associated with pre-coded quantitative instruments makes them attractive, even though their roots are outside of the student experience. To balance the benefits of both practicality and insight, the approach used in the formal evaluations of these subjects could be best described as fitting within an 'eclectic-mixed methods-pragmatic paradigm', as 'the one approach most capable of handling the complexity that is the hallmark of contemporary society and technology' (Reeves, 1997, p.173), though it is the qualitative aspects of this approach which have provided the most useful information for reflective practice. It is important to note that the survey instruments described below provided only one source of input into the narratives and dialogue that were informing the teacher's 'reflection in action' in regard to the subject. Monitoring the use that was being made of CMC by users provided the stimulus for seeking further input from those users as part of the teaching process itself. This was done initially because it appeared that many of the higher order goals and

the potential engagement of users with the issues of the subject were failing to be realised. The two surveys undertaken should not therefore be seen as the only source of 'reflection in action' but rather as part of the rich fabric of inputs that make up the ongoing narrative and incremental nature of subject development. This is a narrative that values interactivity while understanding that it should not be pursued relentlessly and without due regard to the learners who are being asked to engage in 'reflective practice' both for educational and professional reasons.

Evaluation

In the small pilot study undertaken in 1999 to evaluate the role of CMC in the subject, Australian distance education students within the following sub-groups were asked to respond to a series of questions which were developed to gain their feedback and to determine their experience. Responses were sought from:

- those who did not try to use the technology;
- those who tried to use it and failed;
- those who used it but not for discussion (for example, use was confined to obtaining solutions or viewing the contributions of others); and
- those who used it for discussion.

This feedback was complemented by a small number of telephone interviews and reflection on the results of these, along with other experiences and feedback from teaching the subject, led to a series of steps being undertaken in 2000 to improve both the access to and quality of the service. As indicated previously, these steps included the introduction of WebCT.

As expected, the results suggested that it is difficult to provide a fully integrated online learning environment when the learning experiences are limited to enrichment and enhancement. As one of the telephone interviewees stated, 'You only put the icing on the cake if you've actually got the time.' Use was further limited by the fact that some students only had computer access in libraries, computer laboratories or community centres and many found the particular CMC platform which was used difficult to negotiate in limited time. Nevertheless, it was clear that students who had access were motivated to use it when they could see a central benefit to their study and its assessment. An important issue was that the communication system seemed to be valued mainly as a one-way information distribution mechanism, which as some students stated, could have been more effectively handled by a web page.

There was some appreciation of the value of interactivity (especially by those who used the system in this way) but timidity, the lack of a perceived need for discussion, and the fact that no structured discussion activities were set, tended to diminish its use in this way, despite evidence of 'lurking' students gaining some benefits from the interactivity of others.

The more extensive evaluation in 2000 was undertaken using the same instrument as in 1999 after adaptation to reflect the use of WebCT. It involved Australian on-campus (internal) students, distance education students and Year 13 (enhancement) students in Victorian schools, as well as overseas students in Singapore and Malaysia. A related form was designed for the 14 mentors of the enhancement students, seven of whom responded. Hong Kong students were excluded due to logistical problems. The student response pattern is summarised in Table 1.

Student category	Responses	Percentage of enrolled students	Percentage of 134 respondents
Australian distance education students	9/43	20.9%	06.7%
Internal students	19/35	54.3%	14.2%
Enhancement students	15/28	53.6%	11.2%
Singapore students	21/45	46.7%	15.7%
Malaysian students	70/109	64.2%	52.2%
TOTAL	134	N/A	100%

Table 1: Student response pattern

Despite variations, the response rate of almost 50 percent or better for all groups except the Australian distance education students was considered to be a good basis on which to reflect on this phase of development and plan for what was to follow.

While access remained a problem for some students, it had primarily become an administrative issue affecting enhancement and Malaysian students, and particularly related to user names, passwords and subject codes. Only one respondent had no Internet access at all. Again the results suggested that despite the optional nature of an enrichment component, the greater the rewards to be obtained from its use, then the more it is likely that students will find it providing a valuable contribution to their learning. Over 90 percent of respondents made positive comments about the provision of enrichment and enhancement material online and over 80 percent of enrolled students had used the WebCT site, as indicated by the hits. The more accessible structure of the web-based component (compared to the previous CMC tool), appeared to contribute to this, despite a number of suggestions relating to the need for improved navigation, more regular updating, and advice of when updating had taken place.

The respondents clearly found that the use of WebCT added value to the subject, particularly in relation to access to information, with this information again including bulletin board messages (and also now chat transcripts) even when students were not interactive themselves. It was also notable that on-campus students regarded it as a valuable extension to their learning.

However the predominant use of WebCT for obtaining information, rather than interactivity, continues as a major issue in improving student learning and in meeting the educational goals of the subject. This was evident in references to tutorial solutions, model answers, subject information and the tips, comments and notices of subject advisers as the most useful features of WebCT, and in requests for worked solutions to past exams, more questions and answers, and more information and advice as the most frequent suggestions for additional features which would encourage use of WebCT. There was a particular focus on the need for solutions to past exam papers by Malaysian students.

Further development of the use of the bulletin board (in preference to chat) would appear to have the most potential based on the responses of these students. Over half of the respondents were positive about the potential for bulletin boards in promoting communication in their subjects, and nearly a third commented unreservedly on its value in this subject (about a quarter of these did not contribute to it themselves). Comments, which illustrate the sense of community provided by the bulletin board, included:

- It is good to see how other people are going and the particular problems they are having. You can compare & it gives you the chance to see that you are not the only one having problems (Internal student).
- It's good as it allows other students to know what's going on with the subject (Malaysian student).
- The bulletin board was the most beneficial part of the WebCT to me as it was the means of posting queries. I was also able to view the doubts of other students which proved useful (Singapore student).

There was less enthusiasm for the bulletin board amongst the Malaysian students, with nearly half of them unaware of its existence or how to use it ('Did not know how to use it actually what's the bulletin board?', ''Unheard of', 'I dunno what it is at all') or choosing not to use it ('Didn't use, had no interest'). There was also limited use by a number of the enhancement students with inefficiency, lack of time and slow connections amongst the reasons given, with one commenting 'I didn't like having others read my querys (sic)'.

However, there were many more reservations expressed about online chat, which included references to time zones (and lack of Internet access at home), the inconvenience of having to commit to a particular time ('I work most nights, so therefore not home', 'I have lessons on scheduled dates for online chat'), trying to participate but finding 'no one was there to chat', forgetting when sessions were available, along with lack of use because students disliked it,

considered it unnecessary or inefficient, or were 'not interested'. Again, a substantial number of Malaysian students did not know about it or how to use it ('Did not realise chat was available').

Responses on a number of issues suggested the importance of local staff, mentors or tutors to cater for the diverse student groups. Greater involvement at this level would appear to have potential in both increasing the role of WebCT in the subject, and in enhancing the effectiveness of that role in terms of student learning. This was evident particularly in the responses of the Malaysian and enhancement students, and in the responses of the enhancement students' mentors, where staff were involved in teaching and supporting the subject but were not closely involved in the development and implementation of the WebCT component.

Overall, the responses from the second evaluation indicated that important progress had been made with the introduction of WebCT, and that it was a valuable addition to the subject, particularly in relation to the provision of information. However, there were also emerging indications of its benefits (particularly via the bulletin board) in providing a sense of community within the international classroom. Based on these results, some of the main recommendations for the next stage in its development were to:

- refine administrative arrangements to provide personalised, easy-to-access entry to the WebCT site;
- design an orientation program and refine navigation to make student access to the site as easy and user-friendly as possible;
- increase staff involvement so that it occurs on a regular basis, perhaps in conjunction with regular advice on updates;
- involve local staff/mentors/tutors in the design and implementation of the online component; and
- develop the use of the bulletin board in a structured way, perhaps using the desire for increased information, and the provision of rewards for involvement, as tools in the design of its use.

Reflection

While it is tempting to focus on the successful engagement of students with WebCT at the instrumental level, the reflective process draws the practitioner back to the educational goals of this issues-based subject and the inherent ambiguity and uncertainty in their resolution. The reflective practitioner is unable to be satisfied with only technical success when the underlying purpose in using the technology was pedagogical. The outcome of the evaluation process, ongoing reflection on the teaching process, and the ensuing dialogue with a wide range of stakeholders has seen ongoing adjustments made to both the substance and presentation of the subject. Reflective practice suggests that the responsibility for developing reflective practice as a component of students' learning is as much based upon the practices of the teacher as the students. The notion of interactivity achieved through the multiple narratives of learners and teachers provides a rich and complex area to explore through a reflective process directed at the ongoing curriculum development of professionally oriented subjects. While it was the interactive potential to enhance learning that motivated the initial use of CMC, interactivity is far more difficult to achieve than transmitting information electronically. The use of CMC has the advantage of providing a sense of immediacy to the reflective teacher in an international classroom that other approaches could not supply and provides ongoing challenges as to the appropriate direction of the subject. It would appear that interactivity in this environment must take place in incremental steps, particularly via the creative use of the bulletin board. A more structured approach to the introduction of CMC with each new cohort, perhaps using the model suggested by Salmon (2000) and involving the teaching staff closest to the students, as suggested above, may have an important role in facilitating this. In turn, this would require an approach to academic staff development which was capable of adjustment to suit the role of the local teacher of each sub-group.

The importance of this issue is illustrated by the fact that the evaluation results have indicated that the technology, even at an instrumental level, is being taken up at different rates in different geographical locations and under different delivery models. The Malaysian students and the

enhancement students have clearer links to local teachers who have not been closely involved in the development and implementation of CMC, and this appears to be related to its limited use by these students. In contrast, students in Singapore, who were more responsive in this mode, are more directly linked with the provider in Australia. If the development of the online component is to continue, all people involved in its development and teaching must collaborate in order to nurture the collaboration of students. As an issues-based subject is outside of the accounting discipline norm, there is a danger that students will not be convinced of the value of persevering with such an approach, despite the fact that it has the professional bodies' support and clearly has potential to promote interactivity in a way that more traditional approaches could not. If the value of these educational goals is not widely held and supported an instrumental outcome could become a de facto bottom line in the use of CMC to support students.

The process thus far, supported by both evaluative research and reflective dialogue, suggests that although the technology is available to meet higher order educational goals, the motivation of staff and students to be involved is still a complex educational issue: the online learning environment increases the potential and the complexity of interactivity whilst teasing the reflective practitioner, at both the educational and professional accounting level, with its possibilities.

Conclusion

It is suggested that reflective practice as described in this paper makes a contribution towards achieving the goals of innovation, engagement and internationalisation. The experience described here demonstrates that ongoing innovation involving learning technologies can be supported by the convergence of a number of theoretical concepts, many of which pre-date the learning environments now available. Reflective practice has in this accounting subject made a useful and perhaps unique contribution as it has required the incremental aspects of the educational endeavour to be revisited and discussed in collaboration with a wide range of stakeholders including, most importantly, the students. It is suggested that the methodology involved in the process described here is of the utmost importance and deserves more attention than it is currently being given in the context of accounting education, as a means of facilitating ongoing, incremental improvement to the quality of online teaching and learning.

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